

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 96/15471

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 G07F7/10 G07F19/00 G06F17/60

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 G07F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 458 306 A (TOSHIBA) 27 November 1991 see abstract; claims; figures 1-7 ---	1,4
Y	EP 0 186 981 A (IBM) 9 July 1986 see abstract; claims; figures 1-7 ---	1,4
X		21
A		8,9,13
Y	EP 0 194 839 A (TOSHIBA) 17 September 1986  see abstract; claims; figures see page 9, line 1 - page 15, line 24 see page 18, line 26 - page 19, line 23 --- -/--	1,2, 6-10, 12-14, 17,18



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

21 March 1997

Date of mailing of the international search report

02. 04. 97

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	DE 44 06 602 A (DEUTSCHE BUNDESPOST TELEKOM) 7 September 1995	1,2, 6-10, 12-14, 17,18
A	see the whole document ---	4,21
A	EP 0 294 248 A (ELECTRONIQUE SERGE DASSAULT) 7 December 1988 see the whole document ---	1-3,6-9, 12-20
A	EP 0 624 014 A (A.M. FISCHER) 9 November 1994 see abstract; claims; figures ---	1,4,5,22
A	EP 0 337 185 A (SPA SYSPATRONIC) 18 October 1989 ---	
A	WO 93 08545 A (JONHIG) 29 April 1993 ---	
A	EP 0 172 670 A (TECHNION RESEARCH & DEVELOPMENT) 26 February 1986 -----	

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 96/15471

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0458306 A	27-11-91	JP 4033085 A	04-02-92
EP 0186981 A	09-07-86	GB 2168514 A	18-06-86
		DE 3585439 A	02-04-92
		JP 61139878 A	27-06-86
		US 4731842 A	15-03-88
EP 0194839 A	17-09-86	JP 6091526 B	14-11-94
		JP 62000140 A	06-01-87
		US 4862501 A	29-08-89
DE 4406602 A	07-09-95	NONE	
EP 0294248 A	07-12-88	FR 2615638 A	25-11-88
		DE 3887207 D	03-03-94
		DE 3887207 T	26-05-94
		ES 2048211 T	16-03-94
EP 0624014 A	09-11-94	US 5422953 A	06-06-95
		AU 666424 B	08-02-96
		AU 5778194 A	17-11-94
		CA 2120665 A	06-11-94
		JP 7254897 A	03-10-95
EP 0337185 A	18-10-89	AT 123347 T	15-06-95
		DE 58909263 D	06-07-95
		ES 2072870 T	01-08-95
		US 4985921 A	15-01-91
WO 9308545 A	29-04-93	AT 145744 T	15-12-96
		AU 663739 B	19-10-95
		AU 2888692 A	21-05-93
		BR 9205416 A	17-05-94
		CA 2098481 A	17-04-93
		DE 69215501 D	09-01-97
		EP 0567610 A	03-11-93
		JP 6503913 T	28-04-94
		PL 299825 A	18-04-94
		US 5440634 A	08-08-95

**INTERNATIONAL SEARCH REPORT**  
information on patent family members

**information on patent family members**

International Application No

PCT/US 96/15471

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0172670 A	26-02-86	JP 61094177 A	13-05-86
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